

REMARKS

The Office Action of April 17, 2009 was received and carefully reviewed. Claims 4-15, 40-48 and 55-66 were pending prior to the instant amendment. By this amendment, claims 4-6, 40-42 and 64 are amended. Consequently, claims 4-15, 40-48 and 55-66 are currently pending in the instant application. Reconsideration and withdrawal of the currently pending rejections are requested for the reasons advanced in detail below.

Claims 5, 8, 11, 14, 56 and 62 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claim 5 has been amended to recite, *inter alia*, “a condenser lens” and is believed to be in compliance.

Claims 4-15, 40-48 and 55-66 were rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant’s Admitted Prior Art (AAPA) and U.S. Patent No. 5,858,822 to Yamazaki et al. (hereinafter, “Yamazaki ‘822”) and U.S. Patent No. 6,440,785 to Yamazaki et al. (hereinafter, “Yamazaki ‘785”) and U.S. Patent No. 4,724,222 to Feldman in view of U.S. Patent No. 3,154,371 to Johnson. Claims 13-15, 46-48, 55-60 and 64 were rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA and Yamazaki ‘822 and Yamazaki ‘785 and Feldman and Johnson in view of U.S. Patent No. 7,164,171 to Yamazaki et al. (hereinafter, “Yamazaki ‘171”). Claims 61-63 were rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA and Yamazaki ‘822 and Yamazaki ‘785 and Feldman and Johnson and further in view of U.S. Patent No. 5,600,495 to Sekikawa. The cited prior art, however, fails to render the claimed invention unpatentable. Each of the independent claims

have been amended to recite a specific combination of features that distinguishes the invention from the prior art in different ways. At the very least, the applied references, whether taken alone or in combination, fail to disclose or suggest any of these exemplary features recited in independent claims 4-6 and 40-42.

For example, on page 2 of the outstanding Office Action, the Examiner readily admits that AAPA fails to “*describe the means for expanding and condensing the beam or the cylindrical shaped stage.*” In an attempt to cure the deficiencies of AAPA, the Examiner turns to the disclosure of Yamazaki ‘822. On page 3 of the outstanding Office Action, the Examiner alleges that Yamazaki ‘822 “*describes (Figure 3, column 5, lines 10-36) a concave irradiation surface and a linear laser beam having a U-shaped focus line that conforms thereto.*” However, upon further review, Yamazaki ‘822 merely discloses that “*FIG. 3 shows how laser annealing is performed with linear laser light 2 on a silicon substrate formed on a warped glass substrate 1. In FIG. 3, if the warped substrate 1 is subjected to laser annealing, the substrate surface deviates from focuses 3 of laser light differently at respective positions*” (e.g., see col. 2, lines 53-58). Thus, Yamazaki ‘822 is silent in regard to disclosing “*a concave irradiation surface and a linear laser beam having a U-shaped focus line that conforms thereto,*” as purported by the Examiner.

At best, Yamazaki ‘822, at best, merely discloses an inverted-U shaped (convex) shape curvature regarding both a focus line of a laser beam and a laser irradiation surface. On the other hand, Johnson discloses a concave chuck. Thus, combining the disclosed convex shape curvature of Yamazaki ‘822 with the concave chuck of Johnson will yield an undesirable laser irradiation because of the deviation of the focus of the laser beam and, hence, destroy the intended function of the prior art.

Accordingly, Applicant respectfully asserts that one of ordinary skill in the art would not modify Yamazaki '822 in view of the teachings for utilizing the concave chuck of Johnson, since doing so would change the principle operation of Yamazaki '822, thereby rendering Yamazaki '822 unsatisfactory for its intended purpose. As directed by MPEP 2143.01(V), “[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).” Moreover, as directed by MPEP 2143.01(VI), “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).” Thus, Applicant respectfully asserts that the modifying Yamazaki '822 with the alleged teachings of Johnson is not sufficient to render Applicant’s claimed invention *prima facie* obvious.

Even more, to further clarify the invention, independent claims 4-6 and 40-42 have been amended to explicitly claim that both the focus line of a laser beam and a laser irradiation surface have a cylindrical (concave) shape curvature in the negative direction with respect to a direction in which the laser beam advances and in the direction parallel to the first direction.

Additionally, the Examiner finds it necessary to turn to the disclosures of Feldman and Johnson in an attempt to remedy the deficient elements of AAPA, Yamazaki '822, and Yamazaki '785. While Feldman and Johnson may disclose a concave chuck surface which is subjected to be used in a beam irradiation, the beam used in the aforementioned references is not expanded in the first direction and condensed in the second direction as recited in the independent claims. Accordingly, Applicant contends that none of the cited prior art

references, alone or in any proper combination, discloses or suggests the feature of “an aggregation of focus positions of the laser beam passing through the first means and the second means has the cylindrical (concave) shape curvature in the negative direction with respect to a direction in which the laser beam advances and in the direction parallel to the first direction,” as recited in independent claims 4-6 and 40-42.

Furthermore, in the rejection of claims 61-63, the Examiner relies upon Sekikawa in order to cure the apparent deficiencies of AAPA, Yamazaki ‘822, Yamazaki ‘785, Feldman and Johnson. On page 5 of the outstanding Office Action, the Examiner alleges that “*Sekikawa shows well known planoconcave lens and the use thereof would have been obvious at the time applicant’s invention was made to a person having ordinary skill in the art in order to suitably distribute the energy beam at a desired distance.*” However, dependent claims 61-66 do not merely recite a single (emphasis added) planoconcave lens but, rather, “*a cylindrical lens array having planoconcave lenses.*” As such, Sekikawa clearly does not disclose utilizing a cylindrical lens array having planoconcave lenses.

In accordance with the M.P.E.P. § 2143.03, to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 196 (CCPA 1970). Therefore, it is respectfully submitted that neither AAPA, Yamazaki ‘822, Yamazaki ‘785, Feldman, Johnson, nor Sekikawa, taken alone or in any proper combination, discloses or suggests the subject matter as recited in independent claims 4-6 and 40-42. Hence, withdrawal of the rejection is respectfully requested.

Each of the dependent claims depend from one of independent claims 4-6 or 40-42 and are patentable over the cited prior art for at least the same reasons as set forth above with respect to claims 4-6 and 40-42. In addition, each of the dependent claims also recites combinations that are separately patentable.

In view of the foregoing remarks, this claimed invention, as amended, is not rendered obvious in view of the prior art references cited against this application. Applicant therefore requests the entry of this response, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

In discussing the specification, claims, and drawings in this response, it is to be understood that Applicant in no way intends to limit the scope of the claims to any exemplary embodiments described in the specification and/or shown in the drawings. Rather, Applicant is entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Except for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 19-2380. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Should the Examiner believe that a telephone conference would expedite issuance of the application, the Examiner is respectfully invited to telephone the undersigned patent agent at (202) 585-8316.

Respectfully submitted,

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